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(54) **MANAGING SPOOL BEARING LOAD USING VARIABLE AREA FLOW NOZZLE**

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(57) **ABSTRACT**

A turbine engine provides a spool supporting a turbine. The spool is arranged in a core nacelle and includes a thrust bearing. A fan is arranged upstream from the core nacelle and is coupled to the spool. A fan nacelle surrounds the fan and core nacelle and provides a bypass flow path that includes a fan nozzle exit area. A flow control device is adapted to effectively change the fan nozzle exit area. A controller is programmed to monitor the thrust bearing and command the flow control device in response to an undesired load on the thrust bearing. Effectively changing the fan nozzle exit area with the flow control device actively manages the bearing thrust load to desired levels.